

## 'An Exciting Opportunity to Lead'

*A Message from MassDEP Acting Commissioner Arleen O'Donnell*

Governor Romney's appointment of Bob Golledge as the new Secretary of the Executive Office of Environmental Affairs has given me an exciting opportunity to lead MassDEP.

This time of transition represents an opportunity to build on the success of the past by implementing important initiatives that will be the foundation for the successes of the future.

During the last three years, MassDEP has delivered real environmental results for the citizens of our Commonwealth. Some of these achievements are:



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- Massachusetts has become the first state in the nation to establish a drinking water standard for the chemical perchlorate in order to protect sensitive populations;
- MassDEP has set tough standards requiring significant reductions of mercury emissions from power plants; and has also implemented a successful dental mercury amalgam recycling program with dentists across the state.
- MassDEP has increased enforcement against environmental violators – one such effort was a unique aerial enforcement initiative that detected illegal wetland destruction through the use of computer-mapping technology.
- MassDEP has reformed the Administrative Appeals process, which has closed more appeals cases more quickly, despite a slight increase in the number of appeals filed in recent years.
- MassDEP has revised water management guidelines with flexible, but strong water conservation measures.

I am committed to continuing this strong record of accomplishment in protecting public health and the environment, and I am confident that MassDEP will build on this legacy of success in the following areas:

- Massachusetts is the first state in the country to adopt a greenhouse gas (GHG) offset banking system for credits used to comply with strict emission limits in place on carbon dioxide (CO<sub>2</sub>) at the state's

six oldest and dirtiest power plants (see related story).

- MassDEP will continue to work with local officials to install video cameras in areas that are plagued by the illegal dumping of debris and toxic materials. Tough enforcement action will result for anyone caught dumping.
- MassDEP is revising the storm water standards to enhance the recharge of groundwater resources, keeping water local within the basin in which it was withdrawn.
- MassDEP will be going out to public hearing on our Asbestos-in-Soil regulations, which are intended to facilitate the redevelopment of brownfield sites, streamline the process in doing so, and develop clearer, risk-based standards for the handling and disposal of asbestos in soil to better protect public health and the environment.
- MassDEP will be issuing draft regulations to adopt an Environmental Results Program approach for industrial and sanitary sewer connection permits.
- MassDEP will increase service to the public by opening a satellite office on Cape Cod in mid-October, and will be finalizing the design for a newly renovated laboratory, the Wall Experiment Station in Lawrence, turning that facility into a state-of-the-art lab (see related story).

MassDEP is also well positioned to take on future challenges. We are now in the process of implementing recently passed legislation that will further reduce pollution from products containing mercury, reduce toxics through the “new” Toxics Use Reduction Act (TURA), and continue important permit streamlining efforts via the Economic Stimulus Bill.

Building on the success of the perchlorate initiative, we will focus efforts on other emerging contaminants to determine whether MassDEP should take additional proactive measures in order to further protect human health and the environment.

MassDEP will also continue to emphasize environmental disaster preparedness for the agency, as well as energy supply and reliability issues, and the reduction of global warming pollutants from mobile and stationary sources.

I continue to be impressed by the dedication of the staff at MassDEP, who utilize their talents each day to improve the quality of life for all residents of the Commonwealth. Among those staffers is Jenmina Ojuka, an environmental analyst with our Air Assessment Branch in Lawrence, who this week was named a 2006 winner of the Manuel Carballo Award for Excellence in Public Service. Jenmina is a key member of the state scientific team that monitors the air we breathe every day for fine particle pollution. Congratulations!

Finally, I am also heartened by the unique partnerships that MassDEP enjoys with the Commonwealth’s business community, environmental stakeholders, citizens groups, as well as federal, state and local officials. I am confident that, together, we can accomplish these goals and other important initiatives in the days and months ahead.

*– Thanks, Arleen*

## Massachusetts First State to Limit CO2 Emissions

*Leading The Way: Massachusetts Issues Greenhouse Gas Offset Banking Rules for Power Plants Subject to The First (and only) State Limits on CO2 Emissions*



Leading The Way: Massachusetts Issues Greenhouse Gas Offset Banking Rules for Power Plants Subject to The First (and only) State Limits on CO2 Emissions

Massachusetts on October 6 becomes the first state in the country to adopt a greenhouse gas (GHG) offset banking system for credits used to comply with strict emission limits in place on carbon dioxide (CO2) at the state's six oldest power plants, heralding a new era in the battle to reduce GHG, linked by scientists to global warming.

While several other states have talked about it - or appear headed in a similar direction - Massachusetts is the first to officially enact regulatory CO2 emission reductions, while providing safeguards to avoid costs to consumers in the unlikely event that energy costs rise to extraordinarily high levels.

"This regulation provides real and vital environmental benefits, with a flexibility that is essential in this new and volatile energy market," Gov. Mitt Romney said. "It offers rate-hike protection for consumers and businesses, and perfectly complements my energy plan, which supports efficiency, conservation, and diversifying and increasing the energy supply through the use of renewable wood, hydro and wind power developments."

Regulations that provided the framework were initially established in 2001, but with the details of that goal - of limiting CO2 emissions from the six oldest and largest power plants in the state - to be worked out in future years.

### **On-site or Off-site Reductions Required of Power Plants**

The rules that emerged following public hearings and extensive debate include flexible criteria by which the power plants can use projects - conducted on or off their sites - that reduce, avoid or sequester GHG emissions to meet their compliance obligations. These projects may be conducted by the facilities themselves or by third parties.

Power-generation companies can implement GHG reductions at their own facilities or fund other reduction projects off-site through a GHG credit program. In other words, to stay within the limits, power plants could reduce emissions on-site, or purchase these emission credits from third parties that have "banked" emissions reductions certified by MassDEP. Those third-party projects could include

the capture of combusted landfill gases, sequestration of GHG, or the generation of renewable energy, among others.

The end result is that greenhouse gases will decrease and it is expected that, when fully implemented, these regulations will result in the annual reduction of about 2 million tons of CO<sub>2</sub>, or 10 percent below levels emitted in the late 1990s. The CO<sub>2</sub> and GHG regulations, when combined with the Governor's long-term energy plan, will produce a reduction of 3-6 million tons of GHG per year.

### **Consumers Protected from Electricity Price Spikes**

Because the market for GHG credits is just beginning, the regulation contains protections against unexpected and excessive price increases. Initially, facilities can conduct offset projects or purchase offsets from projects conducted in the northeastern US, which keeps environmental benefits and technological developments closer to Massachusetts. However, if the price of available offsets reaches a calendar year average of \$6.50 per ton of GHG emissions, companies would then be able to shop for offsets anywhere in the world, where cheaper opportunities might be available - thus protecting ratepayers while providing the same environmental benefits.

In the unlikely event that the price of offsets climbs to \$10 per ton, power plants can then meet their emissions obligation by paying into a Greenhouse Gas Expendable Trust. The Trust will be used by the state to fund projects achieving the maximum amount of GHG reduction at the lowest price, with a preference for Massachusetts-based reductions.

As a further protection, the final regulations include a Circuit Breaker provision in the first three years of the program, which allows the Commissioner of the Massachusetts Department of Environmental Protection (MassDEP) to expand the geographic scope of projects or allow payments into the GHG Expendable Trust, if credits are unavailable or prices rise unexpectedly. The circuit breaker sunsets on January 1, 2009, after which it is expected that the GHG emission credit market will be more firmly established.

Offset projects must demonstrate a reduction in GHG of at least 5,000 tons per year and can be submitted by any company for credit. The applicant, however, must demonstrate that offsets can be certified by MassDEP. To view more information on the GHG regulations and the response-to-comments document, click on the following MassDEP Website at:

<http://mass.gov/dep/air/laws/regulati.htm#ghg>

## Bills Passed to Reduce Mercury & Toxics

*Governor Romney Signs Bills Targeting Mercury Products, Toxics Use Reduction Act Improvements*

Two key environmental bills were passed and signed into law by Governor Mitt Romney at the close of the legislative session in July. Passage of both of these legislative items - the Mercury Management Bill, and revisions to the 1989 Toxics Use Reduction Act - have been on Beacon Hill's docket for several years. Both will significantly reduce mercury and other toxics through source reduction and waste prevention.



### **Mercury Pollution Continues its Decline**

Mercury pollution is a concern because it tends to accumulate in fish tissue over many years and poses a health risk if consumed, especially by pregnant women, nursing mothers, or children under 12. Many species of fish from across the state are unsafe to eat because of mercury. High mercury levels in yellow perch and large-mouth bass were found to be especially prevalent in northeastern Massachusetts, where the greatest concentration of municipal waste combustors (waste-to-energy plants) is located.

Through a comprehensive strategy, air emissions of mercury in the Bay State have declined over the last eight years by nearly 70 percent. MassDEP pollution control regulations, which took effect in 2000, reduced mercury emissions from the state's municipal waste combustors by more than 85 percent. Yet, despite this huge improvement, incinerators remain the Bay State's largest source of mercury emissions. The mercury comes from dozens of consumer and commercial products that contain mercury and then are incinerated, releasing the mercury in the emissions.

The new Mercury Management Act - which had the strong backing of Senators Pamela Resor, Susan Tucker and Stanley Rosenberg, and Representatives Frank Smizik and Doug Petersen - will further reduce mercury pollution from municipal waste combustors and breakage. It targets 90 percent of automobile switches containing mercury and 70 percent of mercury-containing lighting (which include energy-efficient fluorescent lamps that MassDEP continues to urge consumers to use to save energy) to be collected and recycled. The law phases in these requirements over several years, with flexible implementation options for the affected industries.

First, beginning this month, all public schools in Massachusetts will adopt a ban on the purchase of mercury-containing products. Also, starting in October 2006, all manufacturers that sell or distribute a product that contains "intentionally-added" mercury will need to notify MassDEP (notification will be handled through an interstate clearinghouse that has, over the last three, years been accepting mercury product notifications for several other states).

In May 2008 and 2009, certain mercury-containing products in Massachusetts - such as thermostats, specific medical and measuring instruments, and switches and relays - will be removed entirely from the marketplace whenever viable non-mercury options exist. MassDEP has already begun outreach and other educational efforts with the affected sectors of the economy.

Other elements of the bill require manufacturers to label mercury-added products and to provide consumers with recycling information; and support end-of-life recycling. MassDEP and the Executive Office of Environmental Affairs worked collaboratively with businesses, environmental groups, and legislators to make this legislation strong, yet workable.

### **Toxics Use Reduction Bill Builds on Past Success**

The original Toxics Use Reduction Act (TURA) was signed into law in 1989, and has exceeded its goal of 50 percent reduction of toxic byproducts, in fact achieving 65 percent reduction. The "new" TURA will build on past successes while adapting to a changing world. Among the new requirements:

- It acknowledges that there are some highly hazardous chemicals for which the reporting threshold should be lowered from 25,000 pounds to 1,000 pounds.
- It sets higher fees for higher-hazard toxics compared to fees for lower-hazard toxics.
- It allows facilities that have completed several rounds of toxics use reduction planning to develop alternative resource conservation plans (addressing water, energy, or materials) or to implement an environmental management system.

MassDEP collaborated with members of the legislature (particularly Sen. Resor and Reps. Smizik, Petersen, Bill Greene and James Marzilli), business leaders and environmental advocates on these changes to TURA and will continue to work with our TURA sister agencies - the Toxics Use Reduction Institute and the Office of Technical Assistance - to implement the changes.



## Wall Experiment Station Renovation

*MassDEP's Wall Experiment Station to get \$17 million renovation & expansion project to add 35,000 square feet, state-of-the-art equipment*



It was the decade in which Disneyland opened in California, Albert Einstein died, and James Dean was a Rebel Without a Cause. Ann Lederer took over the Ann Landers advice column at the Chicago Sun Times, everyone wanted a coonskin cap, and the Brooklyn Dodgers played the New York Yankees in five World Series, beating them twice. The 1950s also saw the construction of a new building for MassDEP's Laboratory, now called the Wall Experiment Station (WES), located on Shattuck Street along the Merrimac River in Lawrence.

Over the course of the past 50 years the Dodgers moved to LA, Ann Landers passed away, and an even better Disney theme park was built in Florida. However, other than some basic improvements, little had been done to the Lawrence laboratory facility to keep up with the times.

While WES has done a superb job over the years, it's time for a completely new laboratory, as even Einstein would have been hard-pressed to do certain specialized testing which currently must be sent to more adequately equipped private labs. The 21st Century calls for a whole new WES.

The WES lab renovation project was approximately 10 years in the making. But during the last legislative session, former MassDEP Commissioner Robert W. Golledge Jr. succeeded in obtaining a portion of the funding necessary to design and build a new lab; the remainder of funding will come from U.S. EPA, thanks to assistance from Robert Varney, Regional Administrator of EPA New England.

The WES project and renovations will add 35,000 square feet of space to the current facility, and will cost \$17 million to design and construct. The new laboratory wing is expected to be completed by the end of 2008, and the original structure will be renovated for office space by the end of 2009.

### Designing a 'Green Building'

The new facility will also meet Leadership in Energy and Environmental Design (LEED) Green Building standards. An anticipated savings of approximately 40 percent on heating and cooling costs alone are expected with the new building, and potentially more if funding can be found to install

Photovoltaic Cells, which capture 93 percent of available sunlight, adding a Solar Energy source for the building.

The project is a major transformation that will make the lab a state-of-the-art facility, able to conduct the latest in testing procedures. What's most impressive is the fact that the plan will cost millions of dollars less than it could have had MassDEP chosen to build an entirely new facility in a different location. WES will remain in the current facility on Shattuck Street, which is structurally sound. A phase-in approach to designing and building the new space will be used, which will save millions of dollars in project costs.

WES has done remarkably well considering the fact that the facility was built for water and wastewater treatment research, not for the kinds of complex testing it does now. The building was made to draw raw sewerage from an underground pipe to the second floor, where it would then be run through sand filters to the basement. That kind of testing is no longer done at the facility.

### **Now a multi-purpose laboratory**

WES now does a combination of research, certification (including QA/QC) of private laboratories, method development, and analytical work primarily related to enforcement.

In addition to the obvious facility upgrades needed, the 21st century has brought with it new challenges and environmental testing needs. Unlike the 1950s, today MassDEP must tackle issues such as terrorism, energy shortages, and emerging contaminants in our air and water, such as trace levels of pharmaceuticals and personal care products, pesticides and herbicides, and low levels of perchlorate.

The new laboratory will not only upgrade the physical plant, but the project will bring in new equipment that will allow WES staff to test for an expanding suite of chemicals, as well as bring in a Triage lab to screen suspicious materials before they are brought into the main laboratory.

Given the magnitude of improvements needed, the data provided by WES has been consistently reliable, a fact that can mainly be attributed to the dedicated laboratory staff and to Dr. Oscar Pancorbo, who manages the laboratory.



## Wetlands Agricultural Exemption Upheld

*Massachusetts Supreme Judicial Court upholds constitutionality of agricultural exemption in Wetlands Protection Act & reinstates indictments vs. Quirk Trust, Mansfield property owner*

The Massachusetts Supreme Judicial Court (SJC) recently upheld the constitutionality of the Legislature's delegation to MassDEP of the responsibility to define "agricultural exemption" as it applies under the Wetlands Protection Act (WPA). The SJC also upheld indictments against the defendants in this case, Quirk Trust LLC and Karl D. Clemmey of Mansfield, and sent their cases back to Superior Court.

Initially, this matter began as an investigation into activities on a portion of property owned by Quirk Trust - a trust affiliated with Clemmey. In 2000, the Trust purchased a swath of property in Mansfield on land that clearly encompassed a significant amount of wetlands, including a stream and upland fields, as well as a house, barn and other outbuildings.



In its indictments, the Commonwealth asserted that Clemmey had illegally altered 5.8 acres of wetlands subject to the WPA by filling land, and cutting and clearing trees, plants, and shrubs on the property. Clemmey alleged that these alterations were not subject to the WPA because he intended to establish a horse farm and that the property had previously been used for farming. Affidavits submitted by neighbors and town officials, however, indicated that no farming had occurred on this property in 10 or more years.

### The Court's Analysis of the Case

Clemmey and the Trust challenged the state's indictments, arguing that by delegating to MassDEP the authority to define the terms of the agricultural exemption, the Massachusetts Legislature had violated the separation-of-powers doctrine.

The SJC in its decision concluded that the WPA does not violate the separation of powers, noting that, while the Legislature cannot delegate the power to make laws, the separation between the three branches of government is not an "absolute division," and furthermore that "the question of whether a specific delegation of power violates the Constitution is a question of degree."

The SJC also concluded that the Legislature in this instance clearly set out the policy decision that it

wanted MassDEP to implement. Namely, to balance the interests of environmental protection and agriculture in a way that protected "routine and long-standing farm operations." The court noted that the statute, as amended, made clear that the Legislature intended this agricultural exemption to apply to land currently "in" agricultural use. Also, that the Legislature specifically directed MassDEP to seek input from the farmland advisory committee on what farming activities should be included, and for MassDEP to delineate and identify what these activities are through regulation.

Finally, the SJC noted the presence of other safeguards in the statute, including: the need for commissioner approval; uniform definitions; submission to the legislative committee; and the availability of judicial review. All told, the SJC concluded that due process is satisfied, writing that, "a person of ordinary intelligence would properly be on notice of what conduct falls within the statutory exemption as further detailed in the regulations, especially where the statute itself directs the reader to the applicable regulations."

To view more information on this case, go to:

<http://www.socialaw.com/slip.htm?cid=16328&sid=120>

## National Brownfields Conference

*Massachusetts to Host Thousands of Visitors at National Brownfields Conference In November*

The 11th annual National Brownfields Conference will be held in Boston November 13-15, 2006, at the Boston Convention Center in South Boston. This is the first year this conference has been held in New England, and it is expected to draw over 5,000 participants both nationally and internationally.

The conference, titled "Brownfields2006," provides an important opportunity for environmental and economic development professionals to come together with communities, developers, state officials, and other people involved in brownfields-related projects to discuss ways to return once contaminated sites back to productive use.

This year's conference will feature over 100 panel presentations focused on issues related to environmental, legal, financial and other challenges posed by these projects. The conference will also feature several walking tours and mobile workshops highlighting successful brownfields projects throughout the state. Those include walking tours of the Boston Convention Center and the Phoenix Award-winning Kendall Square Project in Cambridge, as well as mobile workshops that will tour sites in Somerville, Lawrence, and Lowell.



*Top: former brownfields site in Cambridge. Bottom: Now stands the Genzyme building.*

Michael Porter from Harvard Business School will be speaking at the Welcome Plenary Session. He is known as one of the foremost thinkers on business strategy, national and regional competitiveness, and cluster-based economic development. Ray Suarez of "The News Hour with Jim Lehrer" will moderate the Town Meeting Plenary for this conference, and former NFL All-Pro Fuad Reveiz will be featured at the Closing Plenary.



Massachusetts Department of  
Environmental Protection  
One Winter Street  
Boston, MA 02108-4746

Commonwealth of  
Massachusetts  
Mitt Romney, Governor  
Kerry Healey, Lt. Governor

Office for  
Commonwealth Development  
Andrew Gottlieb, Chief

Executive Office of  
Environmental Affairs  
Robert W. Gollidge Jr.,  
Secretary

Department of  
Environmental Protection  
Arleen O'Donnell,  
Acting Commissioner

As the host state for this conference, MassDEP is seizing the opportunity to showcase the great work the agency is doing towards environmental protection and brownfields redevelopment. MassDEP will premiere a film at the conference that tours seven brownfields sites across the state where MassDEP assistance and programs have been critical to successful redevelopment. Sites to be featured include the largest contemporary art museum in the country, a local fresh produce company, the Basketball Hall of Fame, and a company that successfully implemented "green building" principles at their corporate headquarters. MassDEP will also co-host a state luncheon on November 14th with brownfields partner MassDevelopment. This will be invite only.

For more information about the Brownfields2006 conference, please visit: <http://www.brownfields2006.org/en/>